

Chapter 11 – Site Design Requirements

1101 SITE DESIGN STANDARDS AND REQUIREMENTS

1101.1 Application. All of the Site Design Requirements in Chapter 11 of these Regulations shall be applicable to any use that requires a Site Plan, Special Permit or Master Plan. The parking requirements in § 1104 and the outdoor lighting requirements in § 1110 shall be applicable to all uses, regardless of whether a Site Plan application must be filed.

1101.2 Intent. The Site Design Requirements are intended to protect public health, safety, welfare, property values, and natural resources; to encourage site design and development that is efficient, effective and consistent with the general character of the community, neighborhood, and surrounding properties; to ensure aesthetically pleasing development and site design; and to enhance and maintain the rural New England character of North Stonington.

1102 SUSTAINABLE DEVELOPMENT

1102.1 Energy Efficient Design. The Commission encourages all applicants to provide energy-efficient site designs and patterns of development, including but not limited to:

1. passive solar energy techniques that maximize solar heat gain and minimize heat loss during the various seasons;
2. renewable energy sources for heating, cooling, and electricity; and
3. appropriate building orientation, street and lot layout, vegetation, natural and man-made topographical features, and solar access.

1102.2 Low Impact Development (and Design). In order to minimize the negative impacts of development on the environment, all proposed developments, including municipal developments, should, where feasible, implement Low Impact Development (LID) practices and techniques. The Commission may deny a Site Plan if the Commission determines that it does not incorporate reasonably available LID techniques.

1102.3 Performance Standards. Uses that are subject to Chapter 11 of these Regulations shall be designed to minimize any injury or nuisance to nearby premises by reason of noise, vibration, radiation, fire and explosive hazard, electromagnetic interference, humidity, heat, glare, and other physical impacts that may be caused by the use. The Commission may require the modification of proposed Site Plans if it finds such modifications appropriate or necessary to minimize or reduce any such impacts. The Commission may also impose additional restrictions on the use if it determines, after a hearing for which the owner of the facility is given written notice, that the physical impacts of the use are causing a nuisance to nearby properties.

1102.4 Infrastructure and Utilities. Internal roads and travelways must be designed to accommodate all projected traffic flows. All utilities shall be located underground.

1102.5 Environmental Protection. In accordance with CGS § 22a-19, uses that are subject to Chapter 11 of these Regulations shall be designed in such a manner as to avoid any unreasonable pollution, impairment or destruction of the air, water and other natural resources of the state.

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1103 LANDSCAPE DESIGN STANDARDS AND REQUIREMENTS

1103.1 Purpose. In addition to the purposes set forth in § 1101.2 of these Regulations, these landscaping design standards are intended to provide privacy from visual intrusion, light, dirt, and noise; prevent the erosion of soil; provide water recharge areas; and preserve or improve the quality of the environment and attractiveness of the Town of North Stonington.

1103.2 General Requirements. All landscape designs shall be sensitive to the character of the surrounding properties and area and shall use native species. Invasive species shall be prohibited as part of any landscape plan.

1103.3 Perimeter Landscape Area Requirements. Any use subject to Site Plan review shall provide an ornamental landscaped area along the perimeter of the property, excluding areas specifically reserved for vehicular or pedestrian access or for other accessory uses designated on the proposed Site Plan. The landscaped areas shall be a minimum of ten (10) feet in width and shall be designed with a combination of grass, shrubs, flower, shade trees and other vegetative materials skillfully designed to provide a visual landscaped buffer between adjacent properties and to enhance the aesthetic appearance of the district.

1103.4 Landscape Buffer Requirements. When a Site Plan or Special Permit application is submitted for the establishment of a new use, and the parcel is abutted either (1) by any Residential district or (2) by any existing use that would be allowable as of right or with Site Plan review in a Residential district, a landscaped buffer no less than 25 feet in width shall be provided along all such abutting portions of the perimeter. Such buffers shall be designed to provide appropriate screening to minimize any potential negative impacts of noise, light, dust, vibrations, hours of operation, and substantially dissimilar aesthetics. Due consideration should be given to the character of existing districts and uses in determining the density and intensity of techniques and materials needed to provide adequate, aesthetically pleasing, year-round screening. The Commission may require a wider buffer if it finds that adequate screening cannot be provided by a 25-foot-wide buffer.

1103.5 Completion of Landscaping. All landscaping shown on the approved Site Plan shall be completed before issuance of a Certificate of Occupancy unless the landowner provides surety, in a form and amount satisfactory to the Commission, assuring completion within a specific time, not to exceed one year. Such surety shall be forfeited if the work shall not have been completed within such time limit.

1104 PARKING REQUIREMENTS AND DESIGN STANDARDS

1104.1 Application and Scope. For any use hereafter established, off-street parking and loading shall be provided in accordance with this § 1104.

1104.2 Maintenance Required. All spaces required to be provided per this § 1104 shall be permanently maintained and made available for occupancy in connection with, and for the full duration of, the use of land or structure(s) for which such spaces are required.

1104.3 Change of Use. Any change of use or the addition of one or more uses to an existing use shall require that the aggregate off-street parking specified in this § 1104 be provided. If such changes are proposed in connection with an existing use that is already non-conforming with respect to parking requirements, such existing use(s) shall also be brought into compliance at such time.

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1104.4 Number and Size of Parking and Loading Spaces and Berths. Plans for all existing and proposed uses shall provide sufficient on-site parking to accommodate the motor vehicles of all occupants and visitors that may reasonably be expected at any one time, and sufficient loading berths to accommodate the anticipated needs of all planned uses. The standards set forth in § 1104.5, § 1104.7, § 1104.8, and § 1104.9 shall be deemed to specify the necessary and appropriate number and size of parking and loading spaces, berths and areas in the absence of any contrary evidence. However, as part of a proposed Site Plan, an applicant may submit evidence that the same or similar uses can be reasonably accommodated with fewer or smaller spaces or berths, or that more or larger spaces or berths will be needed. The Commission shall weigh the credibility of any such evidence in deciding whether the proposed parking and loading plans are adequate.

1104.5 Parking Ratios. The following off-street parking ratios shall apply to all uses and combinations of uses in the absence of any contrary evidence provided in accordance with § 1104.4. If the proposed number of parking spaces is greater than ten percent (10%) above the minimum number of spaces required by this § 1104.5, and any such spaces are located outside of a parking garage, the applicant must demonstrate, in accordance with § 1104.4, why so many spaces would be necessary or desirable. For purposes of the following ratios, the term “maximum shift” means the time or times during which the greatest number of workers (including management, staff, and all other persons employed by the relevant business) are located at the site on a regular (but not necessarily daily) basis. When the calculation results in a fraction, the number shall be rounded to the next highest whole number. The abbreviation “GFA” means gross floor area.

- A. **Motor Vehicle Sales/Service.** One space per employee on the maximum shift, plus one space per 500 square feet of internal display area, plus one space per 2,000 square feet of outdoor display area, plus two spaces per service bay.
- B. **Financial Institution.** One space per employee on the maximum shift, plus one space per 200 square feet of floor area accessible to the general public.
- C. **Bed and Breakfast.** Two spaces, plus one space per guest bedroom, plus one space per employee at maximum shift, in addition to resident parking.
- D. **Drive-through Restaurant (Fast Food).** One space per two permanent seats, plus one space per employee on the maximum shift, plus one space per 50 square feet of floor area devoted to customer service.
- E. **School.** Two spaces per classroom, plus one space per four seats in any auditorium or gymnasium.
- F. **Funeral Home.** One space per 50 square feet of public area.
- G. **Home occupation.** Two spaces for the dwelling unit, plus one space per 250 square feet of area devoted to the home occupation, plus one space for each non-resident employee.
- H. **Hospital.** One space per five beds, plus one per full-time employee.
- I. **Hotel.** One and one quarter (1.25) spaces per guest room, plus additional spaces as required by the Commission, plus one space per major shift employee. See also § 1104.9.

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- J. **Library.** One space per 500 square feet.
- K. **Lumber Yard/Building Material Sales/Construction Supply Sales/Service.** One space per employee on the maximum shift, plus one space per 250 square feet of floor area accessible to the general public.
- L. **Heavy Manufacturing Facility.** One space per 500 square feet of GFA.
- M. **Light Manufacturing/ Warehousing/Distribution Facility.** One space per employee on the maximum shift, plus one space per fleet vehicle.
- N. **Medical Office/Clinic/Outpatient Care.** One space per employee (including doctors) on the maximum shift, plus three and one-half (3.5) spaces per treatment room.
- O. **Mixed - use Commercial or Commercial/Industrial Development.** Four spaces per use, plus one space per 250 square feet of GFA of commercial uses, plus one space per 500 square feet of GFA for industrial uses.
- P. **Multiple-use Commercial Developments with Gas Station.** Ten spaces for gas station, plus four spaces per use, plus one space per 250 square feet of GFA of commercial uses.
- Q. **Day Care/Nursery School.** One and one-half (1.5) spaces per employee on the maximum shift, plus four spaces, plus adequate drop-off and pick-up areas for children attending the day-care facility or nursery school.
- R. **Office or Professional Building.** One space per 300 square feet of GFA.
- S. **Residential Dwellings.** Two spaces per dwelling unit.
- T. **Restaurant.** One space per employee on the maximum shift, plus one space per three seats.
- U. **Retail Stores.** One space per 250 square feet of GFA, but no fewer than four spaces.
- V. **Places of Public Assembly (including places of worship).** One space per three single-person, fixed seats or, where capacity is not determined by the number of single-person, fixed seats, one space per 60 square feet of floor area available to patrons.

1104.6 Uses Not Listed

The minimum number of parking spaces required for certain uses not listed above are set forth elsewhere in these Regulations. If no minimum number of parking spaces has been established in these Regulations for a particular use, the minimum number shall be determined by the Commission based on such evidence as may be provided or available in the record. An applicant for any such use must submit sufficient information to the Commission to allow it to estimate the number of motor vehicles of all occupants and visitors that may reasonably be expected at any one time. Such information may include, without limitation, evidence regarding the nature, intensity, and mix of the proposed use; projected attendance figures; the number of anticipated employees, visitors or customers; and the experience of similar facilities elsewhere. The Commission may deny an application that fails to provide sufficient, credible information to enable the Commission reasonably to determine the number of parking spaces likely to be required. The Commission may, alternatively, require the applicant to designate an overflow-parking area in the event the parking plan results in insufficient spaces.

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1104.7 Off-Street Loading Requirements

- A. **Size.** Except as provided in § 1104.4, each required loading berth shall be at least 12 feet wide, 50 feet long and 15 feet high. Such berths shall be in addition to an access driveway and required parking spaces.
- B. **Location.** All permitted or required berths shall be on the same lot as the use to which they are accessory. No entrance or exit for any off-street loading area shall be located within 50 feet of any street intersection. Such loading berths may be enclosed or outside, but in no case shall they be located in a front yard.
- C. **Access.** Unobstructed access, at least 12 feet wide, to and from a street shall be provided. Such access may be combined with access to a parking lot.
- D. **Number.** For every structure used for commercial or industrial purposes, or for public institutions and facilities, loading berth requirements shall be as set forth below, except as provided in § 1104.4.

Floor area	# of Berths
10,000 - 25,000 sq. ft	1 Berth
25,000 - 40,000 sq. ft	2 Berths
40,000 -150,000 sq. ft	3 Berths
Each additional 50,000 sq. ft	1 Additional Berth

1104.8 Size of Parking Facilities

Except as provided in § 1104.4, the standards for parking facilities shall be as indicated in the chart below.

- A. The dimensions for parking spaces and drive aisles shall conform to the following table.

		Angle to Drive Aisle		
		90°	60°	45°
A)	Double parking bay	60 ft.	58 ft.	53 ft.
B)	Depth of bay	18 ft.	20 ft.	19 ft.
C)	Aisle width	24 ft.*	18 ft.	15 ft.
D)	Width of space	9 ft.	9 ft.	9 ft.
E)	Depth of space	18 ft.	18 ft.	18 ft.

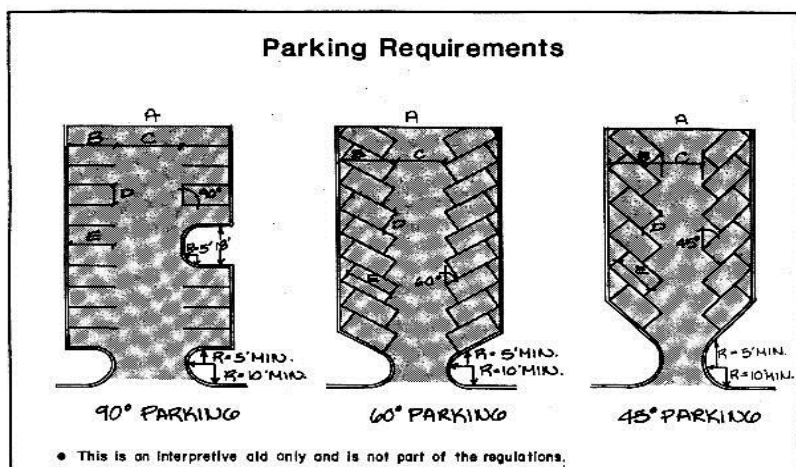
**Aisles for single-loaded parking bays may be 22 ft. wide.*

- B. Aisles for 90-degree parking are for two-way circulation, and aisles for 60-degree and 45-degree parking are for one-way circulation.

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C. Other Standards

1. The outside radius of parking lot end islands shall be ten feet minimum.
 2. All other radii shall be five feet minimum.
 3. All interior landscaped islands shall be a minimum width of 18 feet.
- D. Where parking spaces about a concrete or bituminous walk (minimum six feet in width), the depth of the parking space may be reduced by two feet.



E. Reduction in parking facilities

1. **Permanent shared use reduction.** The Commission may permit a reduction of up to 25% of the required parking spaces due to shared use of parking facilities when the parking needs of the uses occur at different hours of the day.
2. **Permanent compact space reduction.** In parking lots in excess of 50 spaces, the Commission may allow the installation of compact spaces, not to exceed 25% of the total number of spaces installed, at 8 feet x 16 feet. These spaces shall be clearly designated as compact-car parking.

F. Parking Lot and Driveway Design

1. In order to protect the public safety, where traffic volumes, patterns or street geometry warrants, the Commission may require that only one driveway serve any lot, regardless of the length of street frontage, and may designate the location of any driveway. In the case of corner lots, driveways shall be located not less than 150 feet from the intersection of the street lines of the lot. In the case of a corner lot having frontage of less than 150 feet, the driveway shall be as far from the intersection as is practical. Driveways entering streets at a curve or near the crest of a hill shall be located to provide the maximum sight distances possible.
2. Driveways shall be designed to be as perpendicular to the street line as possible, and in no case may the angle between the street line and the driveway centerline be less than 60 degrees.

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3. Parking lots designed for 90-degree parking are encouraged and may be required by the Commission. However, where a one-way circulation pattern is desired due to traffic safety considerations, the Commission may require angle parking.
4. Parking lot aisles longer than 45 feet may not be dead-ended and must provide continuous circulation unless the Commission finds that sufficient turnaround areas and adequate overall site circulation has been provided.
5. For any use requiring Site Plan approval, the applicant must consider the use of pervious material for surfacing all external parking areas. The Commission may require the use of pervious materials if it determines that such materials would be desirable for groundwater recharge or stormwater management.
6. No parking area or driveways shall be closer than ten feet from any portion of a building other than its garage entrance or loading area apron. This ten-foot area may be used for walkways and/or landscaping.
7. See §1105 for additional requirements for non-residential uses.

1104.9 Parking for Buses and other Large Vehicles

- A. In addition to the required automobile parking, a minimum of one bus parking space shall be provided for every 40 units in a hotel and for every 80 seats in a restaurant, except that, if a restaurant is an accessory use to a hotel, the number of bus parking spaces shall be determined by the greater of the two requirements.
- B. Minimum bus parking space dimensions shall be 10 feet wide x 40 feet long.
- C. The Commission may require additional parking spaces that can accommodate larger vehicles that include, but are not limited to, shuttle vans or limousines that may be typically associated with the proposed use, or expected to be parked on site.

1104.10 Parking Lot Landscaping Requirements. Any lot that contains parking facilities for more than ten cars shall also provide landscaped end islands and landscaped center islands within the parking area. Such islands shall be designed and located to maximize the attractiveness of parking lots by providing ornamental landscaped areas and shade. The design of such islands must assure adequate circulation, aesthetic appeal, shade, and capacity for snow storage as a result of plowing.

1105 ACCESS MANAGEMENT

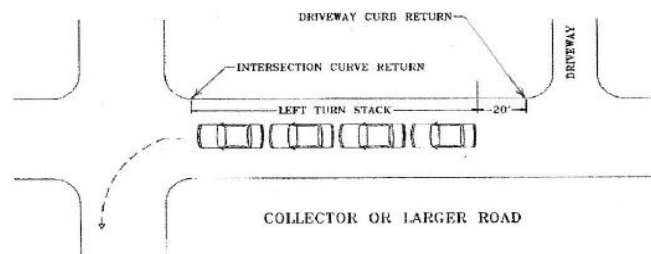
1105.1 Purpose. This section is intended to control the number, size, and location of driveways and access points for business uses in order to promote overall traffic control and promote public safety and welfare.

1105.2 Commercial Access

- A. Commercial access is defined as an access way providing a vehicular connection from a public or private roadway to a parking area serving commercial, recreational, institutional, office, multi-family, mixed use, or industrial land uses.
- B. Commercial access shall be designed to be as perpendicular to the street line as possible, and in no case may the angle between the street line and the access-way centerline be less than 60 degrees.

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- C. No commercial access shall be located within 100 feet of the rotary (curve radius) of Route 184 and Route 2.
- D. **Sightline Distance.** Access shall be designed and located to provide a minimum sight distance, clear of all obstructions, natural or man-made, of 250 feet in either direction on local access roads, 325 feet on collector roads, and 375 feet on arterial roads, as listed in Appendix B.
- E. **Connection to Roads.** The portion of driveway through the right-of-way connecting the property with the physical roadway shall be the shortest perpendicular distance possible. Any grading, filling, or drainage design in the right-of-way shall require a Zoning Permit (unless the access is part of a road approved as part of a subdivision) and the approval of the Town.
- F. **Commercial access** shall be placed so the following minimum distances are maintained to any street intersection, including a T-intersection on the opposite side of the street from a property where access is proposed.
1. **Local access or low volume road:** a minimum distance of 50 feet shall be maintained from the driveway curve return to the edge of the right-of-way at the intersection.
 2. **Collector or larger road:** a minimum distance consisting of the left turn stacking distance (described below) plus 20 feet, as measured from the intersection curve return to the driveway curve return, shall be maintained.
 3. The **left turn stacking distance** shall be calculated using the following formula (or based on a traffic study, if available or required).
 - a. Peak Hour Traffic = Average daily traffic/10
 - b. Peak hour left turns = 1/6 of peak hour traffic for 4-way intersections
 - c. Peak hour left turns = 1/4 of peak hour traffic for T-intersections
 - d. Driveway to intersection spacing = [1.5 x peak hour left turns x 20 feet] + 20 feet.
 4. **Intersection Spacing:**



1105.3 Frontage Requirements. The project's frontage may be traversed by not more than one driveway, unless the Commission finds that more than one driveway is desirable for safety

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reasons. Applicants are encouraged to arrange common accesses with adjoining properties, and the Commission may approve temporary access designs when a more desirable permanent access serving more than one property appears achievable in the future.

1105.4 Traffic and Access. Access to the lot and internal circulation shall be designed so as to promote the safety of pedestrian and vehicular traffic, both on the lot and off site. The Site Plan shall be evaluated on the following basis:

- A. the effect of the development on traffic on adjacent streets;
- B. circulation pattern of vehicular and pedestrian traffic on the site;
- C. provision for parking and loading;
- D. adequacy of sight lines;
- E. relationship of the proposed circulation to circulation on adjacent property, for both vehicles and pedestrians, with special attention to promoting pedestrian traffic among adjacent parcels; and
- F. emergency vehicle access.

1105.5 Access Driveway Design.

- A. **Driveway Widths.** Unobstructed access to and from a street shall be provided. One-way driveways, access ways, thoroughfares, entrances, and exits for nonresidential use shall have a minimum width of 12 feet. Two-way driveways, access ways, thoroughfares, entrances, and exits for nonresidential use shall have a minimum width of 24 feet. An access way may be configured as a boulevard so long as each entrance and exit lane is a minimum width of 15 feet, and the median design is appropriately landscaped.

Access Driveway Widths				
Type of Use	Minimum Access Driveway Width	Opening Width (including flares)		Minimum Centerline Radius of Curvature
		Minimum	Maximum	
Non-Residential	12 feet	24 feet	TBD at SPL Review	65 feet
Length of Access Driveway	Turnouts			
Less than 400 feet	None			
400-800	One turnout at midway point of access driveway			
More than 800 feet	Every 400 feet			

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- B. **Curbing.** The front or primary driveway, entrance, and exit shall be lined, for its entire length on both sides, with curbing of granite or Portland cement concrete unless the Stormwater Management Plan demonstrates that stormwater will be properly controlled without such curbing.
- C. **Surface treatment.** All parking spaces, loading facilities, and access roadways shall have at least six inches of process stone and 2½ inches of bituminous concrete as surface treatment unless the applicant can demonstrate that an alternate treatment would provide an adequate all-weather surface consistent with LID techniques.
- D. **Grade.** Driveways serving commercial or industrial uses shall have a maximum grade of six percent (6%). Driveways shall provide a reasonable transition in terms of grade between the driveway and the gutter line. The driveway shall maintain a grade equal to or less than the crown slope of the road from the point where the driveway meets the road right-of-way to where the driveway crosses the gutter line. This transition is needed to eliminate plows catching their blades on driveways with abrupt grade changes in the vicinity.
- E. **Handicapped Access.** Parking spaces and general access designed and designated for handicapped persons shall be provided in all parking lots in accordance with all applicable state and federal laws and regulations.
- F. **Modification of Site Plans.** The Commission may require the modification of any Site Plan if it finds such modifications necessary to satisfy the requirements of these Regulations. Such modifications may include, but are not limited to, the following:
 - 1. closing existing curb cuts, limiting proposed curb cuts, or closing temporary curb cuts when alternative access points become available;
 - 2. limiting turning movements to right turns in or out of curb cuts;
 - 3. aligning access drives or roads with opposing access drives or roads wherever practical;
 - 4. limiting direct access to Route 2 when a parcel has frontage on an adjacent street or highway.

1106 REFUSE STORAGE

1106.1 Purpose. This section is intended to control the number, size, location, and screening of refuse storage areas in order to protect the public health, safety and general welfare.

1106.2 Requirements.

- A. Refuse storage facilities shall be located in such a manner as to be inconspicuous to the general public and neighboring properties.
- B. Refuse storage areas shall be designed on an eight-inch thick concrete pad and shall be enclosed and screened from view with fencing, wall, hedge/shrubs, or other suitable means.

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- C. Refuse storage areas shall be easily accessible for service vehicles and building occupants and shall not interfere with required parking spaces or circulation on and off the site.
- D. No refuse storage area shall be located in the required front yard or within ten feet of any property line.

1107 OUTDOOR STORAGE

All uses requiring Site Plan approval may store materials and equipment outside of a building only if such storage is a customary accessory use of the principal use and only under the following conditions:

1107.1 Materials

- A. All outdoor bulk storage items, including recyclable materials, shall be fully enclosed within approved storage containers.
- B. No outside-storage materials shall be permitted that will attract animals or insects.
- C. No perishable merchandise shall be stored outdoors.

1107.2 Location

- A. The location of all structures to be utilized for outdoor storage must be designated on an approved Site Plan as outdoor storage.
- B. No outdoor storage shall be allowed in the required front, side, or rear yard setbacks, or required buffer areas, and all outdoor storage shall be screened so as not to be visible from any street.
- C. No outdoor storage shall be allowed in areas required for parking on the site.
- D. Maximum height of stored material and storage structures shall be six feet.

1107.3 Industrial Zones

- A. All areas for outdoor storage of equipment (including vehicles) or materials shall be located to the rear of the principal building and shall be screened so as not to be visible from any street. Box trailers are permitted.
- B. Vehicles (or box trailers) shall not be stacked and storage of materials shall not exceed a maximum height of 25 feet.

1108 OUTDOOR MERCHANDISE DISPLAY

All uses requiring Site Plan approval may display merchandise for sale outside of a building only under the conditions listed below.

1108.1 Merchandise

- A. No perishable items shall be displayed outside, except as permitted for farm stands.

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- B. No merchandise shall be displayed outdoors that will attract animals or insects.
- C. No goods that are leaking or have broken packaging shall be displayed.

1108.2 Location

- A. The location of any area to be used for outdoor merchandise display must be designated on an approved Site Plan.
- B. No merchandise display shall be allowed in areas required for parking on the site.
- C. Displayed merchandise shall not be stacked higher than six feet from the ground. Individual display items that are not stacked may exceed six feet (for example, a kayak leaned against the building of an outdoor recreation store).
- D. Outdoor merchandise display shall be screened from adjacent residential properties, as required in § 1103.
- E. No outdoor merchandise display shall be allowed within the front yard setback with the following exceptions:
 - 1. as part of a permitted roadside stand or farm store; or
 - 2. if the display is located within 10 feet of the principal structure and does not block any sidewalks, parking spaces, or entrances. The total area of any such display may not exceed 200 square feet.

1109 ARCHITECTURAL CHARACTER, AND HISTORIC AND LANDSCAPE PRESERVATION

1109.1 General Provisions. The overall character of the proposed site layout and the architectural character of proposed structures shall be designed, to the extent feasible, to protect property values in the neighborhood and the Town; preserve the existing historic character in terms of scale, density, architecture, and materials used in construction of all site features; protect the existing historic patterns of arrangement of structural and natural features, including circulation patterns; and preserve public access to scenic views and vistas and to water courses.

1109.2 Architectural Characteristics

In the interest of general welfare and to stabilize and protect property values, applicants are encouraged to respect the New England character of North Stonington. Architectural styles typical in the Town of North Stonington include the following.

- 1. Early colonial
- 2. Georgian
- 3. Federal
- 4. Jeffersonian (commercial or public building only)
- 5. Greek Revival
- 6. Gothic Revival
- 7. Italianate
- 8. Stick Style
- 9. Shingle Style
- 10. Bungalows
- 11. Period houses

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12. International Style

1109.3 Encouraged Materials and Practices

- A. Materials, texture, and color used on the exterior walls and roof should emphasize the use of natural materials or should be those associated with traditional New England architecture. Preferred façade materials are brick, stone, and wood, including narrow-width siding, clapboards, wood shingles, or a reasonable equivalent. Metal, unfinished concrete, and concrete block, as well as asphalt siding, are discouraged. Roofing materials, where visible, should be cedar shake, slate, copper, or a reasonable equivalent. Tarpaper, sheet metal, plastic, or fiberglass surfaces are strongly discouraged.
- B. Architectural details characteristic of the particular style and period proposed should be incorporated into the design for new construction and should relate harmoniously to adjacent buildings. Architectural details of a period need not be duplicated precisely, but they should suggest the extent, nature, and scale of the period.
- C. Large structures should have well-articulated façades to reduce the appearance of significant bulk. Provision shall be made to coordinate site architecture with the character of the district. Rooflines should be varied to provide architectural interest.

1110 OUTDOOR ILLUMINATION

1110.1 Purpose. The purpose of this § 1110 is to encourage lighting practices and systems that minimize the degradation of the night-time visual environment, thereby maintaining night-time safety and security while preventing glare, light trespass and light pollution.

1110.2 Exempt Light. The term “outdoor lighting” includes all exterior lighting systems except those associated with the following:

- A. airports;
- B. emergency lighting, provided such lighting is temporary and is disconnected, or otherwise ceases, immediately upon termination of the emergency condition;
- C. fossil fuel lamps; and
- D. temporary residential holiday lighting, provided it is illuminated for fewer than ninety days per year.

1110.3 Lighting Design Requirements

- A. All exterior lighting systems shall be designed, installed and maintained in such a manner as to minimize or substantially reduce disability glare at any location on or off the property; and to minimize or substantially reduce light trespass beyond the property lot line, minimize sky illumination, and present an overall appearance that is compatible with North Stonington’s rural character. All searchlights are prohibited unless expressly allowed elsewhere in these Regulations. Photometric Plans shall be required for all site plans that contain proposed lighting and shall include a description of the proposed lighting fixtures and shall demonstrate that the maximum foot candle does not exceed 3 at any property line.

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- B. Poles and standards used for outdoor lighting shall not exceed 20 feet in height (the Commission encourages 12-foot to 15-foot light poles).
- C. Lighting fixtures shall be full cut-off with low glare and directed lighting.
- D. All non-essential lighting for security purposes shall be turned off after hours.
- E. Area illuminators for parking lots, driveways, pedestrian walkways, and yards shall be pole-mounted or building-mounted. Flood lighting shall be avoided except for loading areas. Building-mounted floodlights may be installed where full cut-off luminaires are impractical, provided top and side shields are attached and maintained to prevent light emission above a vertical cut-off angle of forty-five degrees.
- F. Fixtures shall be designed and mounted such that neither the light source nor the lens are visible from above a height of five feet at the property lot line. Luminaires with sag lens or drop lens shall be shielded.
- G. Recessed low intensity up-lights, well lights, louvered lights, and cone lights may be used for landscaping purposes only.
- H. The Commission may approve a height greater than 20 feet for sports area luminaires provided the luminaires are designed, located and directed to prevent glare and light trespass.
- I. Temporary events shall be exempt from the luminaire height and cut-off requirements of these Regulations, provided a Zoning Permit has been granted for the event and the illumination system will be used only during the temporary event.
- J. The ZEO may approve temporary floodlights higher than 20 feet at a construction site for which a Zoning Permit has been issued, provided the luminaires are designed, located and directed to prevent glare and light trespass.

1111 SOIL EROSION AND SEDIMENT CONTROL REQUIREMENTS

- A. A soil erosion and sediment control plan (SE&SC) that presents, in mapped and narrative form, the measures to be taken to control erosion and sedimentation both during and after construction, shall be submitted when required pursuant to § 1205 of these Regulations. The SE&SC Plan shall be based on “Connecticut Guidelines for Soil Erosion and Sediment Control,” available from the Natural Resources Center of the Connecticut Department of Energy and Environmental Protection.
- B. The SE&SC Plan shall include the following information:
 - 1. A description of the project and a schedule of the major activities to be constructed on the land.
 - 2. Location of wetlands and watercourses.
 - 3. Locations of areas to be stripped of vegetation.
 - 4. Locations of areas to be regraded and contour data indicating existing and proposed grades.
 - 5. A schedule of operations, including the sequence of major improvement phases such as clearing, grading, paving, installation of drainage features, and the like.
 - 6. Seeding, sodding, or re-vegetation plans and specifications for all unprotected or

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unvegetated areas.

7. Location, design, and timing of structural control measures, such as diversions, waterways, grade stabilization structures, debris basins, and the like; the narrative shall indicate design criteria used in the design of control measures.
 8. A description of procedures to be followed to maintain sediment control measures.
 9. The plan map shall show the words: “Erosion and Sediment Control Plan Certified by the North Stonington Planning and Zoning Commission on (date),” and a space for the signature of the Chairman or Secretary of the Commission.
- C. If the Commission finds that the SE&SC Plan is adequate for its intended purposes, it shall certify that the plan is in compliance with these Regulations.
- D. The Commission, through its members, agents, and consultants, shall periodically inspect construction projects for which SE&SC Plans have been certified to verify that erosion and sediment controls are consistent with the certified plan.
- E. The Commission shall require a surety sufficient to assure the completion and proper maintenance of all required and approved SE&SC measures.

1112 **STORMWATER MANAGEMENT** *(Revised 10/16/09)*

1112.1 Purpose and Authority. Increased development without proper consideration of stormwater impacts is a significant source of pollution to surface water and ground water. These water resources are valuable natural, economic, recreational, cultural, and aesthetic resources, and their protection and preservation is in the public interest and essential to the health, welfare, and safety of the citizens of the Town. Stormwater management systems shall be designed to manage site runoff to minimize or eliminate surface and groundwater pollution, prevent flooding, control peak discharges and provide pollutant renovation. Design of a stormwater management system shall be in accordance with the Connecticut Department of Energy and Environmental Protection “Connecticut Stormwater Quality Manual” (CSQM) and the Connecticut Department of Transportation Drainage Manual. All applicants should meet with the Town Engineer prior to submitting the formal application if possible.

1112.2 Applicability. A stormwater management plan is required for any development requiring a Site Plan or for a subdivision/resubdivision that involves the disruption, clearing or removal of ground cover or soil material, or the creation of impervious surfaces in an area greater than one acre, or one-half acre if located in the Seasonal Use or Watershed Protection Overlay district. The stormwater management plan is to be designed to be consistent with the CSQM as amended. The Commission shall use the standards and criteria for decision outlined in the CSQM when reviewing the stormwater management plan unless it finds, based on information submitted in connection with the application and reviewed by the Town Engineer, that alternative standards or criteria should or may reasonably be used and that such alternative standards and criteria will be equally or more protective of the environment.

1112.3 Design Criteria

- A. **Sedimentation.** The system shall remove 80% of the annual solid pollutant loading. CSQM guidelines shall be used in such calculations except as specified in § 1112.2.

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- B. Stormwater Flow.** Individual watershed stormwater flows across the site boundary (property line) must be equal to or less than the pre-existing conditions. In other words, flows may not be increased within any watershed after development, unless the applicant demonstrates, after review by the Town Engineer, that there would be no resulting onsite or downstream negative effects. Flows shall be provided for the 2, 10, 25 and 100-year, 24- hour rainfall events. The plan must include pre-development and post-development flow calculations for each sub-catchment drainage area.
- C. Stormwater Volume.** For each of the design rainfall events (above), the volume of stormwater leaving the site shall be equal to the volume of stormwater leaving the site in its pre-existing condition to the maximum extent practical, unless the applicant demonstrates, after review by the Town Engineer, that there would be no resulting onsite or downstream negative effects.
- D. Groundwater Recharge Volume (GRV).** The GRV shall be calculated and managed in accordance with the procedures and recommendations of the CSQM except as specified in § 1112.2.
- E. Water Quality Volume (WQV).** The WQV shall be calculated and managed in accordance with the procedures and recommendations of the CSQM except as specified in § 1112.2.

In granting the plan approval, the Commission may consider the recommendations of the Town Engineer to make modifications or impose such conditions that may be deemed necessary to ensure compliance with the CSQM or other applicable standards and criteria.

1112.4 Permitting. A Zoning Permit shall not be issued for any development requiring a Site Plan or a subdivision/resubdivision that involves the disruption, clearing or removal of ground cover or soil material, or the creation of impervious surfaces in an area greater than one acre, or one-half acre if located in the Seasonal Use Overlay or Water Supply Protection Overlay district, unless the Commission has approved a stormwater management plan. Where appropriate, the Commission may require, as a prerequisite to the issuance of a Zoning Permit:

- A.** recorded easements for the stormwater management facility and easements to provide adequate access for inspection and maintenance from a public right-of-way;
- B.** a recorded stormwater management maintenance agreement;
- C.** surety; and
- D.** easements from adjacent property owners as necessary.

1112.5 Suspension and Revocation. Any Zoning Permit may be suspended or revoked after written notice is given to the permittee for any of the following reasons:

- A.** any violation(s) of the conditions of the stormwater management plan approval;
- B.** changes in site runoff characteristics upon which an approval was granted;
- C.** construction is not in accordance with the approved plan;
- D.** noncompliance with correction notice(s) or stop work order(s) issued for the construction of the stormwater management facility; and/or

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E. an immediate danger exists in a downstream area.

1112.6 Surety. A surety shall be required prior to the issuance of any zoning and/or grading permit for the construction of a stormwater management facility. The amount of the security shall not be less than the total estimated construction cost of the stormwater management facility. The surety required in this section shall include provisions relative to forfeiture for failure to complete work specified in the approved stormwater management plan and other applicable laws and regulations, and any time limitations established in the stormwater management plan. The surety shall not be fully released without a final inspection of the completed work by a licensed engineer and the Zoning Enforcement Officer, submission of “as-built” plans, and certification of completion by a licensed engineer and the Zoning Enforcement Officer that the stormwater management facilities comply with the approved plan and the provisions of these Regulations.

1112.7 Inspection

- A. The Commission shall designate a professional engineer licensed in the State to conduct inspections as may be necessary or appropriate. Written inspection reports shall be made of the periodic inspections carried out during construction of stormwater management systems to ensure compliance with the approved plan.
- B. The developer shall notify the engineer responsible for inspections at least forty eight (48) hours before commencing any work in conjunction with the stormwater management plan, and upon completion of the project to set up a final inspection.
- C. Written inspection reports shall be provided to the developer and the Commission and shall include:
 - 1. the date and location of the inspection;
 - 2. whether construction was in compliance with the approved stormwater management plan;
 - 3. any variations from the approved construction specifications; and
 - 4. any violations that exist.
- D. The owner and/or developer and, as necessary, the on-site personnel shall be notified in writing when violations are observed. Written notification shall describe the nature of the violation and the required corrective action.
- E. The inspector shall provide the owner and/or developer and the Commission with the inspection reports as soon as possible after completion of each required inspection. Upon issuance of a Notice of Violation, or an unsatisfactory inspection report, all work shall cease until corrective measures are taken and approved by a licensed engineer and the ZEO.

1112.8 Maintenance and Inspection

A. Procedures

- 1. The applicant shall execute an inspection and maintenance agreement binding the property owner and all subsequent owners. Such agreement shall provide for access at reasonable times for regular inspections by the Commission, or its

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authorized representative, to ensure that the stormwater facilities are maintained in proper working condition to meet design standards.

2. The applicant and/or owner shall record the Agreement in the land records of the Town.
3. The Agreement shall provide that, if after notice by the Commission to correct a violation requiring maintenance work, satisfactory corrections are not made by the owner(s) within 30 days, the Commission shall have the right, but not the obligation, to perform all necessary work to place the facility in proper work condition. The owner(s) of the facility shall be assessed the cost of the work and any penalties. Charges shall become a special assessment against the property (e.g., a lien). Nothing herein shall make or be construed to make the Commission, the Town, and/or Town officials, employees, representatives, or agents, legally liable or in any way responsible for the cost, inspection, maintenance, and/or operation of approved stormwater management facilities.

B. Responsibility

1. The owner of the property, and any other person or agent in control of such property, shall maintain in good condition, and promptly repair and restore, all grade surfaces, walls, drains, dams and structures, vegetation, erosion and sediment control measures, and other protective devices. Such repairs, or restoration and maintenance shall be in accordance with the approved stormwater management plan.
2. A maintenance and reporting schedule shall be developed for the life of any stormwater management facility and shall state the maintenance to be completed, the time period for completion, and who shall perform the maintenance. This maintenance and reporting schedule shall be developed as part of the approved stormwater management plan.

- C. Terms and Conditions.** The agreement shall also provide that the applicant/developer and/or owner and each of their respective representatives, heirs, successors and assigns, shall hold the Town of North Stonington and its officials, employees, representatives, agents, boards, agencies and commissions and each of their respective representatives, heirs, successors and assigns, harmless and indemnify them from and against any claims, damages, losses, costs and expenses (including attorney's fees) from any personal injury (including death) and property damage resulting from any act or omission of said applicant/developer and/or owner in the design, construction, inspection, maintenance and operation of stormwater management facilities approved pursuant to this section of these Regulations, and from any acts or omissions, including without limitation, negligent acts or omissions of said Town, and/or its officials, employees, representatives, agents, boards, agencies and commissions and each of their respective representatives, heirs, successors and assigns in the approval and inspection of said facilities or the performance of any activities pursuant to § 1112.8.A.3 of these Regulations.

- D.** Any agreement shall apply to the owners and/or lessees of the property in question and shall run with the land.

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1113 CONSOLIDATED PARCELS

1113.1 Purpose and Applicability

- A. This § 1113 encourages the consolidated development of parcels located in the non-residential zoning districts to preserve the capacity and safety of existing arterial roadways; to provide flexibility in meeting bulk requirements; to facilitate integrated development of large areas of land; to reduce parking requirements through shared parking; and, to facilitate consolidation of stormwater management systems among smaller parcels.
- B. Any number of contiguous parcels may be consolidated for the purposes of development regardless of ownership, and the consolidated parcel shall be considered to be one lot for the purposes of meeting the requirements of these Regulations.
- C. Consolidated parcels shall be permitted only in the C, HC, ED, and I districts.

1113.2 Basic Requirements. The consolidated parcel must be developed with an integrated plan for access, buildings, parking, loading, landscaping, and signage. Applicants for consolidated parcels shall be required to:

- A. provide for shared access to abutting properties through common driveways, parking lots, service roads and/or cross-easements (whether existing or future);
- B. construct all or a portion of a shared driveway or service road in order to provide for shared access, where appropriate; and
- C. file easements on the land records, acceptable to the Commission and Town Attorney, in favor of the abutting properties and/or the Town to allow for their future interconnection.

1113.3 Additional Requirements

- A. Unless the Commission determines that buffers are needed between incompatible uses within a consolidated parcel, the yard, buffer, parking, and building setback requirements shall not apply to individual lots within a consolidated parcel, but shall instead apply to the consolidated parcel as a whole.
- B. The Commission may limit direct highway access to individual parcels within a consolidated parcel in accordance with the access management requirements of § 1105.1.

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